

**WHAT IS CLAIMED IS:**

1. A method for applying a liquid composition to a rail surface comprising,
  - i. supplying the liquid composition in one or more than one reservoir on a rail car; and
  - ii. applying the liquid composition from the one or more than one reservoir to the rail surface.
2. The method according to claim 1, wherein after the step of supplying (step i), there is a step of:
  - a. determining a change in the topology of the rail within a rail system, and, in the step of applying (step ii), the liquid composition is applied to the rail surface as a result of a change in the topology of the rail.
3. The method according to claim 2, wherein in the step of applying (step ii), the liquid composition is applied to a curved section of the rail, a tangent section of the rail, or both a curved section of the rail and a tangent section of the rail.
4. The method of claim 1, wherein in the step of applying (step ii), the liquid composition is applied to the top of the rail, to a side of a railhead of the rail, or both to the top of the rail and to the side of a railhead.
5. The method of claim 4, wherein the liquid composition is applied to the top of the rail.
6. The method of claim 4, wherein the liquid composition is applied to both the top of the rail and to the side of the railhead.
7. The method according to claim 1, wherein the rail car is a freight car.
8. The method according to claim 1, wherein the rail car is a passenger car.
9. The method of claim 1, further comprising a step of obtaining and processing system information, the system information comprising topological information, data from a liquid delivery system comprising the one or more than one reservoir, or both topological information and data from a liquid

delivery system, wherein the system information is obtained and processed locally within the rail car.

10. The method of claim 1, further comprising a step of obtaining and processing system information, the system information comprising topological information, data from a liquid delivery system comprising the one or more than one reservoir, or both topological information and data from a liquid delivery system, wherein the system information is obtained and processed remotely at a site separate from the rail car.
11. A liquid composition application system mounted on a rail car comprising:
  - 10 i. one or more than one reservoir for holding a liquid composition;
  - ii. a pipe connected to the one or more than one reservoir; and
  - iii. a pump, in fluid communication with the pipe, for moving the liquid composition from the one or more than one reservoir to one or more than one dispensing nozzle.
- 15 12. The liquid composition application system of claim 11, further comprising a controller that processes topological information, data from the liquid composition application system, or both topological information and data from a liquid composition application system.
13. The liquid composition application system of claim 12, wherein the controller is connectable to a locomotive control circuit, and wherein the controller operates in response thereto.
- 20 14. The liquid composition application system of claim 12, wherein the controller is accessed remotely from a site separate from the rail car.
15. The liquid composition application system according to claim 11, further comprising a source of pressurized air connected to the one or more than one dispensing nozzle to dispense the liquid composition as an atomized spray.

16. The liquid composition application system according to claim 12, wherein the controller is selected from the group consisting of a programmable logic controller, a microprocessor and a computer.
17. A rail car, comprising the liquid composition application system of claim 11
- 5 18. A method for applying a liquid composition in a railway system, comprising the steps of:
  - i. supplying the liquid composition in one or more than one reservoir on board a train consist;
  - ii. receiving topological information from a topological device on board the train consist;
  - 10 iii. processing the topological information received from the topological device using a processing device to produce processed topological information; and
  - iv. applying the liquid composition from one car within the train consist to a rail surface within the rail system according to the processed topological information.
- 15 19. The method according to claim 18 wherein in the step of processing (step iii), the processing device is selected from the group consisting of a computer, a microprocessor, and a programmable logic controller (PLC).
- 20 20. The method according to claim 19, wherein the one car within the train consist is a locomotive.
21. The method according to claim 19, wherein the one car within the train consist is a rail car.
22. The method according to claim 18, wherein in the step of receiving (step i), the topological device comprises a global positioning system (GPS), the GPS providing real-time topological information to the processing device for controlling the application of the liquid composition to the rail surface.

23. The method according to claim 22, wherein the processing device further comprises a database having topology information of the railway system, and wherein the processing device coordinates the information from the GPS with the database information for controlling the application of the liquid composition to the rail surface.  
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24. The method according to claim 18 wherein in the step of receiving (step i), the topological device is selected from the group consisting of a device for determining the speed of a pair of wheels, one or more than one gyroscope, one or more than one proximity probe, and a rail width detection system.
- 10 25. A device for applying a liquid composition to a rail surface, comprising:
  - i. means for acquiring topological information of a rail system in real-time;
  - ii. means for applying the liquid composition to the rail surface; and
  - iii. a processing device for receiving the topological information, and controlling the application of the liquid composition.
- 15 26. The device according to claim 25, wherein the means for acquiring is selected from the group consisting of a global position system (GPS), a device for determining the speed of a pair of wheels, one or more than one gyroscope, one or more than one proximity probe, and a rail width detection system.

20